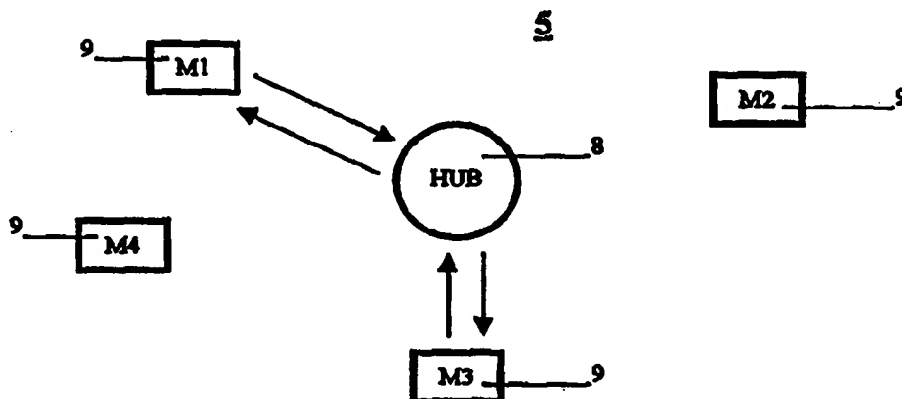




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| <b>(21) International Application Number:</b> PCT/AU98/00785<br><b>(22) International Filing Date:</b> 18 September 1998 (18.09.98)<br><b>(30) Priority Data:</b><br>PO 9322 19 September 1997 (19.09.97) AU<br><b>(71) Applicants (for all designated States except US):</b> COMMON-WEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION [AU/AU]; Limestone Avenue, Campbell, ACT 2612 (AU). MACQUARIE UNIVERSITY [AU/AU]; Balacclava Road, North Ryde, NSW 2113 (AU).<br><b>(72) Inventors; and</b><br><b>(75) Inventors/Applicants (for US only):</b> MYLES, Andrew, Frederick [AU/AU]; 5/8 Tuckwell Place, North Ryde, NSW 2113 (AU). SKELLERN, David, James [AU/AU]; 33 Dudley Avenue, Roseville, NSW 2069 (AU). DEANE, John, Fraser [AU/AU]; 9 Clive Road, Eastwood, NSW 2122 (AU). PERCIVAL, Terence, Michael, Paul [AU/AU]; 3 Lawn Avenue, Lane Cove, NSW 2066 (AU). ZHOU, Sihui [AU/AU]; 239 River Avenue, Carramar, NSW 2163 (AU). LAM, Alex, Chan, Kit [AU/AU]; 144 Ryde Road, Pymble, NSW 2073 (AU). | <b>(74) Agent:</b> SPRUSON & FERGUSON; G.P.O. Box 3898, Sydney, NSW 2001 (AU).<br><b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, MI, MR, NE, SN, TD, TG).<br><b>Published</b><br><i>With international search report.</i> |   |

**(54) Title:** MEDIUM ACCESS CONTROL PROTOCOL FOR DATA COMMUNICATIONS**(57) Abstract**

A method for controlling communications between a hub and a plurality of distributed stations over a medium is disclosed. The method comprises the steps of a method for controlling communications access between a hub (8) and a plurality of distributed stations (M1-M7) over a medium, the method comprising the steps of (a) allocating a plurality of channels for data communications between the station (M1-M7) and the hub (8), the number of channels being at least equal to the number of stations, (M1-M7) and each station owning at least one channel, each channel being varying in one of an empty-, a reserved-, or an owner-state, and whereby (i) the empty-state provides a channel to which any station (M1-M7) can have access; (ii) the reserved-state provides a channel to which a station (M1-M7) having made a reservation with the hub (8), but not owning the channel, can have access; and (iii) the owner-state provides a channel to which only the owning station (M1-M7) has access; and (b) re-allocating the respective state and/or the number of channels over time on the basis of each station's data requirements.